

# 3

National Detector  
Dog Manual

## Health Care

### *General Care*

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#### Contents

|   |             |
|---|-------------|
| Introduction  | page-3-4-1  |
| Health Care Considerations for Working Dogs                     | page-3-4-1  |
| Veterinary Health Checkups                                      | page-3-4-2  |
| Semiannual  | page-3-4-2  |
| Annual  | page-3-4-2  |
| Daily Health Checks   | page-3-4-2  |
| Monitoring the Health of the Kennel Environment                 | page-3-4-7  |
| Maintaining Peak Performance through Nutrition and Conditioning | page-3-4-7  |
| Nutrition   | page-3-4-7  |
| Conditioning  | page-3-4-8  |
| Weight Management   | page-3-4-8  |
| Recognizing Symptoms of Illness                                 | page-3-4-9  |
| Vomiting  | page-3-4-18 |
| Other Abnormal Behaviors  | page-3-4-22 |
| Immunization Schedule   | page-3-4-22 |
| Microchips  | page-3-4-22 |
| Other Medical Considerations                                    | page-3-4-23 |
| Administering Medication  | page-3-4-23 |
| Capsules, Tablets or Liquids                                    | page-3-4-23 |
| Eye Ointment and Eye Drops                                      | page-3-4-25 |
| Ear Drops and Ear Ointment                                      | page-3-4-27 |
| Selecting Veterinary Services                                   | page-3-4-28 |

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#### Introduction

Prevention is perhaps the most important element in maintaining a healthy working dog. Performing daily health checks on your dog, monitoring the condition of the kennel environment, identifying deviations from your dog's peak physical and mental condition, providing adequate nutrients, and recognizing symptoms of illness are all pivotal to providing preventive care.

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#### Health Care Considerations for Working Dogs

Working dogs and dogs housed in kennels are under a great deal of stress. Stress stimulates the adrenal glands to produce corticosteroids, which, even at continuous low levels, are sure to compromise the dog's immune system over time. Additionally, detector dogs are exposed to an extraordinary array of pathogens in their work environment, and often, too, in the kennel environment. The kennel environment, itself, may wear on the dog's immune system through the indiscriminate use of cleaning materials or inadequate hygiene. These factors make working dogs ready targets for a variety of health problems.

## Veterinary Health Checkups

Each canine must have the following veterinary checkups:

### Semiannual

This is a general examination, mostly external, which should include checking the coat and skin, feet and legs, eyes, nose, ears, mouth, genital and rectal areas, vital signs (TPR<sup>1</sup>), and fecal tests.

### Annual

This is a full examination, which includes a general examination, vaccinations, complete blood-work, teeth cleaning (if needed), x-rays, and fecal tests.

## Daily Health Checks

The following table lists values that are within normal ranges for most dogs. However, each dog may vary and it is important that the Canine Officer note the normal values for his or her individual dog. Any substantial deviation from normal should be investigated.

**TABLE 3-4-1: Canine Vital Signs**

| Function    | Normal  | Measure  | Other  | Signs of Health Problems   |
|-------------|---|--|--|--|
| Respiration | 10–30/min   | Chest rise<br>(count for 15<br>seconds x 4=<br>respirations<br>per minute) | Panting can<br>reach nearly<br>100/minute                                | ◆ Neck extended, unwilling to lie down, labored breathing<br><br>◆ Restrictive: increased rate, decreased depth (pain, compromise of lower respiratory tract)<br><br>◆ Obstructive: normal-to-increased rate, increased depth. Obstructed airways, swelling, snake bite, neck trauma |
| Heart Rate  | 70–160/min<br>(size of dog<br>influences<br>rate) | Pulse points<br>Direct cardiac<br>Femoral<br>Digital                       | Some deviation from a normal heart-beat can be expected in athletic dogs | ◆ Comparing pulse at each point may indicate where problems are occurring.   |
| Temperature | 99°F–102°F  | Rectal thermometer   | Aural thermometers are not accurate                                      | ◆ High: heat stroke, fever<br><br>◆ Low: unable to thermoregulate; shock, infection  |

1 TPR = Temperature, Pulse, Respiration Rate.

Canine Officers must perform daily health checks on their detector dogs to ensure good health (both physical and mental). Perform daily health checks while brushing the dog.

Each Canine Officer should know how his or her dog's coat normally looks, the frequency of its bowel movements, its eating habits, and its normal body temperature at rest. Canine Officers use this knowledge when checking their dogs to help reveal anything abnormal. Abnormalities, along with symptoms of diseases and parasites, will help detect illness in the early stages.

Refer to other sections under *Health Care* for dog anatomy, diseases, parasites, first aid, and emergency care. Knowing the proper terms to describe the dog's anatomy and to describe symptoms of injury or illness will enable Canine Officers to more efficiently report problems to their veterinarians.

Use **Table 3-4-2** that follows as a guide when checking the dog for symptoms of illness or injury. If a symptom is present, contact the veterinarian. Also, check the kennel and run areas daily (See ***Monitoring the Health of the Kennel Environment***).

**TABLE 3-4-2: Daily Health Check**

| Check the dog's:   | The following could be symptoms of illness or injury:  |
|--|--|
| <p><b>Eyes:</b> Illnesses are frequently accompanied by changes in the eyes and many illnesses affect only the eyes. Usually, a dog's eyes are bright and clear and the surrounding membranes are a healthy pink.</p>  | <ul style="list-style-type: none"> <li>◆ Red or yellow color of the membranes and white part of the eyes</li> <li>◆ Paleness of the membranes</li> <li>◆ White or yellow discharges</li> <li>◆ Cloudiness or other discolorations of the clear part of the eyes (cornea)</li> <li>◆ Puffy eyelids</li> <li>◆ Eyelid partially or completely closed</li> <li>◆ Nictitating membrane* that covers more of the eyeball than usual</li> </ul> <p>*The nictitating membrane, or third eyelid, is the small, wedge-shaped membrane at the inner corner of the eyes. Usually, this membrane covers only a small part of the eye.</p>  |
| <p><b>Nose:</b> The black pad at the end of a dog's nose is usually shiny and moist.</p>   | <ul style="list-style-type: none"> <li>◆ The black pad is persistently dry, dull, and warm</li> <li>◆ Watery, yellowish, or red-tinged discharge</li> <li>◆ Sneezing</li> <li>◆ Snorting</li> <li>◆ Pawing at the nose</li> </ul>  |
| <p><b>Ears:</b> The external portion of the ear is called the flap. The vertical ear canal extends down in the earflap to the opening of the horizontal ear canal that leads to the inner ear. A small amount of brownish wax in the vertical canal is normal.</p> <p>(continued on next page)</p> | <ul style="list-style-type: none"> <li>◆ Reddish, discoloration of the ear canal</li> <li>◆ Swelling of the ear canal</li> <li>◆ Unpleasant odor coming from the ear canal</li> <li>◆ Shaking of the head, holding the earflap down, holding the head to one side, twitching the ear, scratching or pawing at the ear</li> <li>◆ Evidence of pain when the ear is touched</li> <li>◆ Large amount of wax in the ear canal*</li> </ul> <p>*<b>CAUTION:</b> Never probe into the ear canal. You can remove dirt and wax from the inner part of the earflap. Have the veterinarian check the ears even when they appear to only need cleaning.</p> <p><b>NOTE:</b> See <a href="#">Cleaning the Ears</a> in the <a href="#">Grooming</a> section.</p> |
| <p><b>Mouth:</b> In the dog's mouth, gums, and inner lips should be a healthy pink. Teeth should be firm and white. Brush teeth as recommended by a veterinarian.</p>  | <ul style="list-style-type: none"> <li>◆ Paleness or discoloration of gums</li> <li>◆ Sores on gums</li> <li>◆ Persistent drooling</li> <li>◆ Bloody saliva</li> <li>◆ Gagging or pawing at the mouth</li> <li>◆ Bad breath, or worse than usual</li> <li>◆ Loose and broken teeth</li> <li>◆ Tartar accumulations on the teeth</li> <li>◆ Objects lodged between the teeth or in roof of mouth</li> </ul>   |

**TABLE 3-4-2: Daily Health Check (continued)**

| Check the dog's:   | The following could be symptoms of illness or injury:  |
|--|--|
| <p><b>Coat and skin:</b> A well-fed and groomed dog usually has a glossy coat and skin that is soft and pliable. Note that the coat can change appearance with climate and season. The undercoat is thicker in cold weather and sheds in hot weather.</p>  | <ul style="list-style-type: none"> <li>◆ Reddening</li> <li>◆ Scabbing</li> <li>◆ Moist discharges</li> <li>◆ Scratching</li> <li>◆ Abnormal shedding</li> <li>◆ Loss of hair in spots</li> <li>◆ Dryness</li> <li>◆ Loss of pliability</li> <li>◆ Presence of fleas or ticks</li> </ul>   |
| <p><b>Feet and legs:</b> Foot pads should be free of foreign objects, cuts, bruises, and abrasions.</p> <p>(continued on next page)</p>  | <ul style="list-style-type: none"> <li>◆ Foreign objects, cuts and bruises, and abrasion of the pads</li> <li>◆ Long, broken, or split nails (nails should not touch the ground when the dog stands)</li> <li>◆ Loosely attached dewclaws should be removed by a veterinarian</li> <li>◆ Long nails on dewclaws (nails should not curl around to the pad)</li> <li>◆ Lameness</li> <li>◆ Wounds, swelling, or sores on legs</li> <li>◆ Inflamed elbow callus</li> </ul>  |
| <p><b>Genital area:</b> In a male dog, the penis is located in a fold of skin known as the prepuce or sheath. A small amount of greenish-yellow discharge at the end of the sheath is normal.</p> <p>In a female dog, the external genital opening is the vulva. Usually, there is no discharge.</p> | <p><b>Males:</b></p> <ul style="list-style-type: none"> <li>◆ Large amounts of discharge present</li> <li>◆ Bleeding sheath</li> <li>◆ Blood in urine (after the dog has urinated, look at the end of the sheath for blood)</li> <li>◆ Swelling, reddening, or scabbing of the scrotum (the pouch normally containing the testicles)</li> <li>◆ Frequent unproductive attempts to urinate. Quickly licks sheath after attempting to urinate. (Signs of urinary tract infection.)</li> </ul> <p><b>Females:</b></p> <ul style="list-style-type: none"> <li>◆ Reddening of the vulva or the skin in the genital area</li> <li>◆ Discharge</li> <li>◆ Blood in urine (Watch the dog urinate to detect blood. If you detect blood, note if the blood was in the first portion, last portion, or distributed throughout the urination.)</li> <li>◆ Increased urination, beyond the ordinary</li> <li>◆ Frequent unproductive attempts to urinate. Quickly licks vulva after attempting to urinate. (Signs of urinary tract infection.)</li> </ul> |

**TABLE 3-4-2: Daily Health Check (continued)**

| Check the dog's:   | The following could be symptoms of illness or injury:   |
|--|---|
| <b>Rectum area:</b> The opening from the rectum is the anus. On either side of the rectum near the anus is a small sac (anal gland) that is a frequent source of trouble.  | <ul style="list-style-type: none"> <li>◆ Swelling or reddening of the skin in the area of the anus</li> <li>◆ Biting at the rectum area or sliding along in a sitting position (symptom of anal glands being full or infected)</li> <li>◆ Soft or watery stool</li> <li>◆ Blood in the stool</li> <li>◆ Worms or segments present in the stool; worm segments on hair around anus</li> <li>◆ Difficulty or straining while eliminating waste</li> </ul>   |
| <b>Body:</b> The general appearance of the dog<br>(continued on next page)   | <b>Females:</b> Presence of lumps on the dog's body. Take special care around teats (checking for breast cancer).   |
| <b>Attitude and actions:</b> The dog's attitude and actions are best indications of general health.  | <ul style="list-style-type: none"> <li>◆ Undue nervousness</li> <li>◆ Loss of vitality and energy</li> <li>◆ Increased desire for sleep</li> <li>◆ Tiredness</li> <li>◆ Inattentive while working or training</li> <li>◆ Changes in appetite, thirst, or breathing</li> <li>◆ Vomiting or blood in the vomit</li> <li>◆ Stressed (panting excessively or circling the kennel run)</li> <li>◆ Any suspicious behavior that is not typical for the specific dog</li> </ul>  |
| <b>Temperature:</b> A dog's temperature is also an excellent indication of the animal's health. Know your dog's normal body temperature while at rest. Usually, a dog's normal body temperature is within 101–102 °F.                | <p>Unusual variation in temperature. Some variation in temperature may be normal, such as following exercise. Take the temperature rectally following these directions:</p> <ol style="list-style-type: none"> <li>1. Depending on your dog's previous behavior, you may have to muzzle the dog before taking its temperature.</li> <li>2. Lubricate the rectal thermometer with petroleum jelly to ease insertion.</li> <li>3. Insert the thermometer only 1" into the rectum.</li> <li>4. Hold the thermometer in the rectum for 2–3 min. before reading. Hold the thermometer in place while taking the temperature to prevent the thermometer from completely entering the rectum.</li> </ol> |
| <b>Hydration:</b> When vomiting and/or diarrhea persist, a dog can become dehydrated rapidly. Also, dehydration can be a sign of an underlying illness.<br><br>Note that it may be normal for a dog to eat grass and vomit one time. | <ul style="list-style-type: none"> <li>◆ Skin lacks turgor or pliability (when gently pulling and releasing the skin above the shoulders, it should immediately return to normal)</li> <li>◆ Dry mucous membranes</li> <li>◆ Eyes appear sunken back in their orbits</li> <li>◆ Slow capillary refill time—more than 2 seconds</li> <li>◆ Rapid heartbeat of over 150 beats/minute</li> <li>◆ Slow heartbeat of under 80 beats/minute</li> </ul> <p><b>CAUTION:</b> Dehydration is a serious condition; when symptoms are present, immediately take the dog to the veterinarian.</p>  |

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## Monitoring the Health of the Kennel Environment

Kennel requirements are discussed in detail in Section 2-3-2. Daily kennel checks should be performed for the presence of any abnormal conditions such as blood, vomit, worms, or insect pests. The kennel should be clean and dry whenever the dog is present. Kennel runs must be clear of insect pests, reptiles, rodents, or any other organism that can transmit a disease or parasite. Additionally, the kennel run should be free of debris, physical hazards such as loose wires, sharp metal points or edges, and other items that could injure the dog. Kennel cleaning solutions should not be irritating to the dog. Vaporous irritants, such as gas from chlorine bleach, can severely stress your dog, as well as cause irreparable damage to fragile respiratory tissues.

### At the beginning of your tour of duty, check the kennel for:

- ◆ Stools (watery or runny, mucous, tapeworms, abnormal color)
- ◆ Evidence of blood stains, vomit, abnormal urine stains
- ◆ Crawling insects (ticks)
- ◆ Food and water (availability and freshness). Note the amounts consumed by the dog.

### At the end of your tour of duty, check the kennel for:

- ◆ Safety hazards (broken fences and/or unworkable locks or handles)
- ◆ Bucket or pan full of fresh water. If there is an automatic water supply system, then make sure it is working.
- ◆ General cleanliness of the kennel run

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## Maintaining Peak Performance through Nutrition and Conditioning

### Nutrition

#### What Food to Use

Premium pet foods are required. They can be purchased at pet stores, veterinarian offices, and specialty stores.

#### When to Feed

Dogs must be fed at least once in a 24-hour period. Exceptions are when a feeding schedule is prescribed by a veterinarian for medical purposes. Canine Officers should maintain a routine feeding schedule.

#### Develop and Maintain a Feeding Schedule

At work locations where there is more than one detector dog team, Canine Officers must coordinate with each other and the kennel personnel when developing and maintaining feeding schedules.

## Conditioning

As endurance athletes, detector dogs should be conditioned gradually into increased levels of exertion. Allowing your dog to progress in physical activities at a reasonable pace ensures that the dog stays enthusiastic about the activity, and also minimizes the potential for stress injury. Conditioning for peak performance should include a warm-up, exertion phase, and cool down. Massaging muscles that have been stressed is relaxing to the dog and helps build rapport between dog and handler. Massage is also an excellent way to locate any sore areas, compromised muscles, or stiff joints.



To maintain its health and welfare, the dog must have a scheduled 24-hour day off each week.

## Weight Management

Obesity (actual body weight exceeds ideal weight by 15-20%) is one of the most common health problems for dogs. Obesity should be considered a serious health problem, as it can increase a dog's disposition for skin problems, heart failure, hypertension, and orthopedic problems. Obesity suppresses the immune response, increases the risks associated with anesthesia, and inhibits recovery from surgery. It is typically caused by providing the dog more energy (food) than it needs or uses. Other factors that may lead to obesity in canines include: neutering (tends to increase appetite, especially in females), genetics (especially beagles, Labrador retrievers, among other breeds), free-feeding of high quality food, competition for food, obesity as puppy.

Assessment of proper body weight is simple. The presence of a moderately defined "waist" when viewed from above, or abdominal "tuck" when viewed from the side indicates that the dog is not obese (refer to [Appendix F](#).) Light palpation of the ribcage is another indicator of weight condition. Ribs should not be visible, but should be easily palpable without applying pressure in a dog in good condition. If you must apply pressure to feel the ribs, your dog is probably carrying extra weight.



**Canines can lose 2-4% of their body weight per week without ill effect. Actual hunger can be detrimental to the dog's working ability, as it may cause the dog to lack focus or become irritable.**

Do not feed supplements without veterinary advice. Supplements can unbalance a balanced diet and cause problems with joints and other organ systems. Do NOT feed supplements such as bones or meat. These items can create digestive upsets and other, more serious problems.

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## Recognizing Symptoms of Illness

Canine Officers should be aware of symptoms of illness that could have a negative effect on the working proficiency of their dogs. Veterinary medicine has vaccines for most of the deadliest infectious diseases that effect dogs (please see addendum at the end of the chapter for descriptions of these), however dogs are subject to other ailments that require the attention of a veterinarian. At minimum, a Canine Officer should be aware of symptoms that probably signal that the dog needs the services of a veterinarian. Early detection and treatment of an illness may limit its severity or may prevent a more serious condition from developing.

The tables below list several common symptoms Canine Officers may encounter, and assist the Canine Officer in determining if the condition warrants a veterinary consultation. Daily health checks are the best way to detect symptoms early. Daily health checks will also help each Canine Officer calibrate the "normal" for his or her dog, so that deviations from normal will be apparent. At the first sign of any abnormality a Canine Officer should begin documenting the condition. The Canine Officer can greatly enhance the effectiveness of diagnosis and treatment by providing certain types of information to the veterinarian.

Following are checklists of information that may be helpful to the Canine Officer for organizing information for the veterinarian. These lists may be photocopied for future use.

**TABLE 3-4-3: Health Abnormality Checklist**

|   |  |
|---|--|
| <b>What</b> is the abnormality? (Describe, do NOT Pre-scribe)                           |  |
| <b>When</b> did you first notice it?  |  |
| Does the abnormality occur at any <b>particular time</b> (e.g., after meals? At night?) |  |
| <b>How many times</b> has it occurred?  |  |
| Did <b>any unusual events or situations</b> precede the condition?                      |  |
| Has anything <b>changed in the dog's environment</b> ?                                  |  |
| Does the condition occur in <b>any particular setting</b> ?                             |  |

**TABLE 3-4-4: Symptom Checklist**

|           |                                 |   |                        |
|-----------|---------------------------------|---|------------------------|
| Attitude  | <input type="checkbox"/> Normal | <input type="checkbox"/> Depressed<br><input type="checkbox"/> Lethargic<br><input type="checkbox"/> Restless   | Observations and Notes |
| Appetite  | <input type="checkbox"/> Normal | <input type="checkbox"/> Increased<br><input type="checkbox"/> Decreased<br><input type="checkbox"/> Unnatural  |                        |
| Thirst    | <input type="checkbox"/> Normal | <input type="checkbox"/> Increased<br><input type="checkbox"/> Decreased  |                        |
| Bowels    | <input type="checkbox"/> Normal | <input type="checkbox"/> Soft, formed<br><input type="checkbox"/> Soft, unformed<br><input type="checkbox"/> Watery<br><input type="checkbox"/> Other |                        |
| Urination | <input type="checkbox"/> Normal | <input type="checkbox"/> Increased<br><input type="checkbox"/> Decreased  |                        |
| Breathing | <input type="checkbox"/> Normal | <input type="checkbox"/> Labored<br><input type="checkbox"/> Wheezy   |                        |
| Coughing  | <input type="checkbox"/> No     | <input type="checkbox"/> Dry<br><input type="checkbox"/> Wet<br><input type="checkbox"/> Hacking<br><input type="checkbox"/> Retching                 |                        |
| Vomiting  | <input type="checkbox"/> No     | Frequency _____<br>Duration _____   |                        |

Below are tables that provide general guidelines on how to determine a course of action if you observe abnormalities in your dog. Some of the most common problem areas that may present symptoms of health problems in detector dogs include the following:

- ◆ Appetite (sudden changes in appetite either with or without weight changes)
- ◆ Coughing
- ◆ Bowel Problems such as diarrhea
- ◆ Vomiting

Eyes and ears can usually be kept fairly clean and dry with regular attention. Any odors or dark colored discharges from these areas should be referred to a veterinarian for diagnosis and treatment.

The most important determinant of whether you should call or take your dog to a veterinarian, however, is what you observe as an abnormal behavior or condition for your dog. Early signs of illness may be subtle in many dogs. If you feel your dog is “off”, but is not presenting discrete symptoms, increase your watchfulness of the dog for at least 24–48 hours.

**TABLE 3-4-5: Determining Action to Take on Sudden Changes in Your Dog's Appetite**

| If your dog's appetite: | And you also observe:  | The cause MAY be:   | Action |   |
|-------------------------|--|---|--------|---|
|                         |  |   | If:    | Then:   |
| Increases               | <ul style="list-style-type: none"> <li>◆ Weight gain</li> <li>◆ Normal Elimination</li> </ul>  | ◆ Change in diet  | →      | Decrease amount of food by 1/4 cup increments, weekly, to control weight. |
|                         | <ul style="list-style-type: none"> <li>◆ Increased water consumption</li> <li>◆ Hair loss</li> <li>◆ "Potbellied" appearance</li> <li>◆ Poor wound healing</li> </ul>  | <ul style="list-style-type: none"> <li>◆ Cushing's Disease</li> <li>◆ Pancreatic Disease</li> </ul> | →      | Call veterinarian to request laboratory tests.                            |
|                         | <ul style="list-style-type: none"> <li>◆ Weight loss</li> <li>◆ Increased water consumption</li> <li>◆ Breath smelling of "nail polish"</li> <li>◆ Vomiting</li> </ul> | ◆ Diabetes  |        |   |

**TABLE 3-4-5: Determining Action to Take on Sudden Changes in Your Dog's Appetite (continued)**

| If your dog's appetite: | And you also observe:   | The cause MAY be:   | Action                   |  |
|-------------------------|---|---|--------------------------|--|
|                         |   |   | If:                      | Then:  |
| Decreases               | <ul style="list-style-type: none"> <li>◆ No vomiting or other symptoms</li> </ul>   | <ul style="list-style-type: none"> <li>◆ Change in diet</li> </ul>  | Weight loss is undesired | Return to previous diet  |
|                         |   |   | Weight loss is desired   | Make sure weight loss does not exceed 2–4% of body wt./week  |
|                         | <ul style="list-style-type: none"> <li>◆ Excessive yawning</li> <li>◆ Stereotyped scratching</li> <li>◆ Whole body shaking</li> <li>◆ Excessive licking or self-mutilation</li> </ul> | <ul style="list-style-type: none"> <li>◆ Stress</li> </ul>  | →                        | <ol style="list-style-type: none"> <li>1. Try to remove or reduce any stressors from dog's environment.</li> <li>2. Examine whether dog's social needs are being met.</li> <li>3. Provide increased amount of exercise.</li> <li>4. Provide stress-relief toys.</li> </ol> |
|                         | <ul style="list-style-type: none"> <li>◆ Drooling</li> <li>◆ Excessive salivating</li> <li>◆ Scratching face with paws</li> <li>◆ Foul-smelling breath</li> </ul>                     | <ul style="list-style-type: none"> <li>◆ Dental problems</li> <li>◆ Poisoning</li> <li>◆ Obstruction</li> </ul> | →                        | <ol style="list-style-type: none"> <li>1. Examine teeth for signs of infection or abscess.</li> <li>2. If you suspect poisoning, try to determine type and call poison control (888-426-4435).</li> <li>3. Call a veterinarian.</li> </ol>                                 |

**TABLE 3-4-5: Determining Action to Take on Sudden Changes in Your Dog's Appetite (continued)**

| If your dog's appetite: | And you also observe:   | The cause MAY be:  | Action                             |  |
|-------------------------|---|--|------------------------------------|--|
|                         |   |  | If:                                | Then:  |
| Decreases               | <ul style="list-style-type: none"> <li>◆ Lethargy</li> <li>◆ Excessive or unnatural fatigue</li> </ul>  | <ul style="list-style-type: none"> <li>◆ Fever, unknown origin</li> </ul>  | Temperature is over 104°F          | Call veterinarian immediately.   |
|                         |   |  | Temperature is within normal range | Watch closely for 12–24 hours and discuss with veterinarian  |
|                         | <ul style="list-style-type: none"> <li>◆ Drooling</li> <li>◆ Vomiting</li> <li>◆ Burping</li> <li>◆ Lethargy</li> </ul>                       | <ul style="list-style-type: none"> <li>◆ Gastrointestinal upset, unknown origin</li> <li>◆ Unnatural food</li> <li>◆ Food allergies</li> </ul> | Temperature is over 104°F          | Call veterinarian immediately  |
|                         |   |  | Temperature is within normal range | Watch closely for 12–24 hours and discuss with veterinarian  |
| Is unnatural            | The dog is eating <ul style="list-style-type: none"> <li>◆ Feces</li> <li>◆ Stones</li> <li>◆ Dirt</li> <li>◆ Other non-food items</li> </ul> | <ul style="list-style-type: none"> <li>◆ Boredom</li> <li>◆ Nutritional stress</li> </ul>  | →                                  | 1. Enrich kennel environment.<br>2. Provide stress-relief toys.<br>3. Consult veterinarian concerning diet.<br>4. If dog is eating feces, add formula containing papain to feed (e.g., "Forbid," "Deter," Adolph's meat tenderizer). |
| Is other than above     | ◆ Various signs   | ◆ Other  | →                                  | <b>If in doubt, call your veterinarian!</b>  |



Whenever you are in doubt about your dog's health, call your veterinarian.

**TABLE 3-4-6: Determining Action to Take on Coughing (Including Wheezing, Sneezing, and “Reverse Sneezing”)**

| If your dog's cough is:   | And is accompanied by:   | The cause MAY be:  | Action:                              |  |
|---|--|--|--------------------------------------|--|
|   |  |  | If:                                  | Then:  |
| Dry, persistent   | <ul style="list-style-type: none"> <li>◆ Labored breathing</li> <li>◆ Retching</li> </ul>  | Internal parasites   | →                                    | Contact a veterinarian for laboratory tests  |
| Dry, occurs after a meal or chewing on rawhide or other object                          | <ul style="list-style-type: none"> <li>◆ Refusal to eat</li> <li>◆ Restlessness</li> <li>◆ Excessive saliva</li> </ul>   | Obstruction  | Cough persists for 5 minutes or more | Call a veterinarian  |
|   |  |  | Cough lasts less than 5 minutes      | Watch dog carefully for recurrence or other signs of illness   |
| Dry, harsh, high-pitched (may be activated by gently compressing front of dog's throat) | <ul style="list-style-type: none"> <li>◆ Sudden outburst of hacking, forceful coughs</li> <li>◆ Retching</li> <li>◆ Foamy mucous</li> <li>◆ Gagging at end of coughing bout</li> </ul>                                   | Kennel cough   | →                                    | 1. Quarantine dog <b>immediately!</b><br>2. Contact veterinarian for diagnosis.<br><br><b>Note:</b> Even if dog has been immunized for common <i>Bordetella</i> sp., it may be infected by different or resistant species. |
| Painful (may be activated by tapping dog's chest)                                       | <ul style="list-style-type: none"> <li>◆ Weak cough</li> <li>◆ Labored breathing</li> <li>◆ Nasal discharge</li> <li>◆ Depression</li> <li>◆ Fever</li> <li>◆ Stretched neck</li> <li>◆ Inability to lie down</li> </ul> | Pneumonia  | →                                    | Contact veterinarian <b>immediately!</b>   |
| Low-pitched cough, more common at night or in morning                                   | <ul style="list-style-type: none"> <li>◆ Mucous</li> <li>◆ White or bubbly sputum</li> <li>◆ Weakness</li> <li>◆ Dog may stand with legs spread, head down, while coughing</li> </ul>                                    | <ul style="list-style-type: none"> <li>◆ Heart disease</li> <li>◆ Congestion due to liquid in chest</li> </ul> | Cough persists for 24 hours or more  | Call a veterinarian.   |
|   |  |  | Cough lasts less than 24 hours       | Watch dog carefully for other signs of illness.  |

**TABLE 3-4-6: Determining Action to Take on Coughing (Including Wheezing, Sneezing, and “Reverse Sneezing”) (continued)**

| If your dog’s cough is: | And is accompanied by:  | The cause MAY be:   | Action:   |  |
|-------------------------|---|---|---|--|
|                         |   |   | If:   | Then:  |
| Wet                     | <ul style="list-style-type: none"> <li>◆ Long periods of coughing</li> <li>◆ Whistling noises while breathing</li> <li>◆ Fever may or may not be present</li> </ul>         | <ul style="list-style-type: none"> <li>◆ Allergies</li> <li>◆ Bronchitis</li> <li>◆ Obstruction</li> </ul>                                | Fever is present for 24 hours or more                                       | Call a veterinarian  |
|                         |   |   | Fever lasts less than 24 hours, but the cough persists for 24 hours or more | Call a veterinarian  |
|                         |   |   | Fever lasts less than 24 hours, and the cough lasts less than 24 hours      | Watch dog carefully for recurrence or other signs of illness |
| Wheezing                | Evidence that the dog has been bitten by an insect or exposed to fumes  | <ul style="list-style-type: none"> <li>◆ Bronchioconstriction</li> <li>◆ Allergic reaction</li> <li>◆ Congestive heart failure</li> </ul> | →   | Take dog to a veterinarian <b>immediately!</b>               |
| Sneezing (chronic)      | <ul style="list-style-type: none"> <li>◆ Noisy breathing</li> <li>◆ Nasal discharge with foul odor</li> <li>◆ Bloody nasal discharge</li> <li>◆ Plugged nostrils</li> </ul> | <ul style="list-style-type: none"> <li>◆ Rhinitis</li> <li>◆ Bacterial infection</li> </ul>   | Cough persists for 24 hours or more   | Call a veterinarian  |
|                         |   |   | Cough lasts less than 24 hours  | Watch dog carefully for other signs of illness               |



**TABLE 3-4-6: Determining Action to Take on Coughing (Including Wheezing, Sneezing, and “Reverse Sneezing”) (continued)**

| If your dog’s cough is: | And is accompanied by:  | The cause MAY be:   | Action: |   |
|-------------------------|---|---|---------|---|
|                         |   |   | If:     | Then:   |
| Reverse sneezing        | <ul style="list-style-type: none"> <li>◆ Loud, snorting noise through nose</li> <li>◆ Attempts to “clear back of throat”</li> </ul> | <ul style="list-style-type: none"> <li>◆ Allergies</li> <li>◆ Post-nasal drip</li> <li>◆ Sensitive throat</li> <li>◆ Compression of throat</li> </ul> | →       | <ol style="list-style-type: none"> <li>1. Usually no further action needed, but vet may check dog’s throat to rule out trauma.</li> <li>2. Cover dog’s nose and mouth, speak calmly, rub its neck, release immediately on cessation of distress.</li> </ol> |
| Is other than above     | ◆ Various signs   | ◆ Other   | →       | <b>If in doubt, call your veterinarian!</b>   |




Whenever you are in doubt about your dog’s health, call your veterinarian.

**TABLE 3-4-7: Diarrhea and Bowel Movement Irregularities**

| Area Affected | Consistency                    | Color              | Frequency                | Other Symptoms                  |
|---------------|--------------------------------|--------------------|--------------------------|---------------------------------|
| Small bowel   | Watery (rapid evacuation)      | Yellow or greenish | 3–4 times per day        | Weight loss                     |
|               | Pasty                          | Light              |                          |                                 |
|               | Greasy, large, rancid-smelling | Gray               | 3–4 times per day        | Vomiting (except colitis)       |
|               | Tarry                          | Black              |                          |                                 |
| Large bowel   | Mucousy                        | Bright blood       | Several, small, per hour | Normal appetite, No weight loss |
| Pancreas      | Dry, pasty                     | White              | →                        | Vomiting, diarrhea              |

**TABLE 3-4-8: Determining Action to Take for Diarrhea and Bowel Movement Irregularities**

| If:  | And:  | And:   | The cause MAY be:  | Action:   |
|--|---|--|--|---|
| <ul style="list-style-type: none"> <li>◆ The stool is very loose</li> <li>◆ The stool contains bright blood</li> <li>◆ The stool contains slimy mucous</li> <li>◆ Diarrhea alternates with constipation</li> </ul> |    | The dog crouches forward or strains  | <ul style="list-style-type: none"> <li>◆ Colitis</li> <li>◆ Stress-induced</li> <li>◆ Growths in intestinal tract</li> </ul> | Contact veterinarian for assessment and possible diet adjustment                      |
| The stool: <ul style="list-style-type: none"> <li>◆ Is loose to watery</li> <li>◆ Contains no blood</li> <li>◆ Contains no mucous</li> <li>◆ Is foamy</li> </ul>   | The condition lasts 24 hours or longer  | You observe no remarkable symptoms   | <ul style="list-style-type: none"> <li>◆ Gastroenteritis</li> <li>◆ Parasites</li> <li>◆ Bacterial infection</li> </ul>      | Consult a veterinarian  |
|  | The condition lasts less than 24 hours  | You observe no remarkable symptoms   | Diet inconsistency   | Allow digestive system to rest by withholding food or feeding bland diet for 24 hours |
| <ul style="list-style-type: none"> <li>◆ The stool is loose to watery</li> <li>◆ Loose stools alternate with solid</li> </ul>  | The condition's length is variable, but chronic   | <ul style="list-style-type: none"> <li>◆ The stool often contains blood or mucous</li> <li>◆ Bowel movements may be explosive</li> </ul> | <i>Giardia</i> sp. (a protozoan)   | Request testing by a veterinarian   |
| You observe no bowel movement, but thick mucous is present in dog's rectum   | The dog exhibits: <ul style="list-style-type: none"> <li>◆ Vomiting</li> <li>◆ Lack of appetite</li> <li>◆ Lethargy</li> <li>◆ Fever</li> </ul> | The dog attempts to defecate in a hunched-up stance  | Blockage of bowel  | Contact a veterinarian <b>immediately</b>   |





## Vomiting

Vomiting is one of the most common occurrences in dogs. Vomiting and regurgitation are often confused. Vomiting is the forcible expulsion of partially digested matter; regurgitation is the passive expulsion of undigested matter. Chronic regurgitation is the most common symptom of a condition known as megaesophagus. This condition must be carefully managed under veterinary supervision.

Dogs often vomit after eating grass or other items. This is not usually any cause for concern. Other causes of vomiting are more serious and require veterinary attention.

- ◆ Acute vomiting is generally self-limiting, may be a single event and may be caused by overeating, eating unusual items (grass, feces, dirt, etc.), obstructions (such as foreign objects), chemicals (such as poisons or drugs), or infections (e.g., bacterial, viral).
- ◆ Chronic vomiting is the recurrence over hours, days, or other time periods and is generally a metabolic (such as Addison's disease), an idiopathic (such as epilepsy) or an inflammatory (such as irritable bowel syndrome) problem.

**TABLE 3-4-9: Determining Action to Take for Vomiting**

| If vomiting is:              | And you observe:  | And you also observe:   | The cause MAY be:  | Action  |   |
|------------------------------|---|---|--|---|---|
|                              |   |   |  | If:   | Then:   |
| Acute (one to several times) | <ul style="list-style-type: none"> <li>◆ Depression</li> <li>◆ Decreased appetite</li> <li>◆ Dehydration</li> <li>◆ Drooling</li> <li>◆ Whining</li> <li>◆ Trembling</li> </ul> |    | <ul style="list-style-type: none"> <li>◆ Spoiled food</li> <li>◆ Grass eating</li> <li>◆ Over-eating</li> </ul>                              | Fever is absent   | <ol style="list-style-type: none"> <li>1. Withhold food for 24 hours</li> <li>2. Watch dog for other signs of illness</li> <li>3. Perform skin turgor test</li> </ol> |
|                              |   |   |  | Fever is present  | <ol style="list-style-type: none"> <li>1. Note what the dog vomits</li> <li>2. Consult with veterinarian if vomiting continues</li> </ol>                             |
|                              |   | <ul style="list-style-type: none"> <li>◆ Yawning</li> <li>◆ Shaking</li> <li>◆ Pacing</li> <li>◆ Eye-rolling</li> <li>◆ Diarrhea</li> </ul> | Stress   | Fever is absent   | <ol style="list-style-type: none"> <li>1. Withhold food for 24 hours</li> <li>2. Watch dog for other signs of illness</li> <li>3. Perform skin turgor test</li> </ol> |
|                              |   |   |  | Fever is present  | <ol style="list-style-type: none"> <li>1. Note what the dog vomits</li> <li>2. Consult with veterinarian if vomiting continues</li> </ol>                             |
|                              |   | Vomit contains blood or mucous  | <ul style="list-style-type: none"> <li>◆ Gastro-intestinal disease</li> <li>◆ Foreign object</li> <li>◆ Other, serious conditions</li> </ul> |  | Call veterinarian <b>immediately!</b>   |
| Acute (projectile)           | <ul style="list-style-type: none"> <li>◆ Difficulty defecating</li> <li>◆ Abdominal distress</li> <li>◆ Possible respiratory distress</li> </ul>                                |    | Blockage of upper gastrointestinal tract   |  |   |

**TABLE 3-4-9: Determining Action to Take for Vomiting (continued)**

| If vomiting is: | And you observe:  | And you also observe:   | The cause MAY be:  | Action |   |
|-----------------|---|---|--|--------|---|
|                 |   |   |  | If:    | Then:   |
| Chronic         | <ul style="list-style-type: none"> <li>◆ Depression</li> <li>◆ Dehydration</li> <li>◆ Drooling</li> <li>◆ Whining</li> <li>◆ Trembling</li> </ul> | <ul style="list-style-type: none"> <li>◆ Poor appetite</li> <li>◆ Listlessness</li> <li>◆ Vomiting not associated with meals</li> <li>◆ No continuous occurrence of symptoms</li> </ul> | <ul style="list-style-type: none"> <li>◆ Internal disorder (organ involvement)</li> <li>◆ Diabetes</li> <li>◆ Heavy parasite load</li> </ul> | →      | Call veterinarian for checkup and laboratory work   |
| Dry heaves      | <ul style="list-style-type: none"> <li>◆ Restlessness</li> <li>◆ Excessive drooling</li> <li>◆ Depression</li> <li>◆ Shock</li> </ul>             | Hard, distended abdomen   | Gastric dilatation volvulus (torsion, bloat)   | →      | 1. Take dog to veterinarian <b>immediately</b> .<br>2. Administer first aid en route (see ).<br><br>You have approximately 20 minutes from the onset of the mild symptoms before this condition results in death! |
| Other           | Various symptoms  | →   | Other  | →      | <b>If in doubt, call your veterinarian!</b>   |



**Important**

Whenever you are in doubt about your dog's health, call your veterinarian.

For a single incident of vomiting, you may want to rest the dog's digestive system by feeding a bland diet. Basically, a good bland diet consists of a low or no fat protein and a carbohydrate. You may wish to mix one part low fat protein (e.g., cottage cheese, ricotta cheese, tuna in water, boiled chicken without broth) to two parts grain (e.g., rice, macaroni). Using rice as the grain portion has the added advantage of firming up the stool, if diarrhea accompanies the vomiting. Keep the dog hydrated, as vomiting can quickly deplete body fluids.

## Other Abnormal Behaviors

Other abnormal behaviors that may indicate health-related problems include the following:

- ◆ “Scooting”—dragging the anus across the floor—indicates that the dog may have impacted anal glands.
- ◆ Drooling—although this can be associated with periodontal disease and some other mouth problems, it is often an indicator of stress. Dogs on food reward drool, sometimes copiously, when awaiting the reward on a target. It is important to calibrate what is “normal” for your dog and what is “abnormal” to determine if drooling is excessive.

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## Immunization Schedule

Usually immunization schedules are set up by your veterinarian to correspond with local requirements or conditions that exist in your area. Please bear in mind that the distemper vaccine (killed virus) may cause a temporary lack of olfactory sensitivity in your dog. Your dog should probably be rested for 24 hours after the vaccines are administered. Leptospirosis vaccines should be of the type that will protect against as many strains of the disease as possible. At the present time, standard vaccines protect for 2 strains.

*Giardia* vaccines are recommended for dogs being kennelled. Lyme disease (*Borrelia*) vaccines should be administered in areas that are at high risk for this disease. When vaccinating, handlers should consider all areas where the dogs will be used, not simply the location of the kennel and airport at which they are normally assigned.

Currently, the following vaccines are administered on a yearly schedule: distemper, hepatitis, adenovirus, parainfluenza, leptospirosis, parvo, and corona. Bordatella (intranasal) vaccine is administered every six months. Bordatella vaccination may affect the dog’s sense of smell.

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## Microchips

Microchips that identify your dog as a USDA detector dog are inserted at the training center. Please provide the information concerning the inserted chip to your local veterinarian.

## Other Medical Considerations

Some drugs may cause a temporary decrease in olfactory sensitivity for all or some odors. Drugs currently known to have this effect are steroids, some antibiotics, and killed virus distemper vaccines.

## Administering Medication

There will be times when a veterinarian prescribes preventive medicine or medication for a sick or injured dog. Canine Officers are responsible for administering all types of medication to their dogs. The medicine may be a capsule or tablet, liquid, ointment, or drops.

Following are directions for administering different types of medicine. For related first aid and emergency care, refer to the information behind the green tab.

### Capsules, Tablets or Liquids

When any foreign substance is placed directly into a dog's mouth, its first reflex is to spit it out. To successfully administer oral medication the dog is forced to swallow. Administering medicine is best done quickly and smoothly to keep the dog from being apprehensive and resentful. Before administering oral medicine without food, review the following steps for administering capsules, tablets, or liquids.

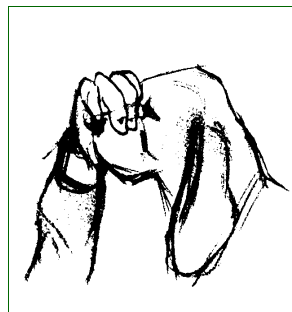


Do not give oral medications or any liquids if the dog is unconscious or cannot swallow.

### Steps for Administering Capsules or Tablets

Some capsules or tablets can be put in a spoonful of canned dog food. The dog will eat the pill along with the food. Use the following steps to administer capsules or tablets without food.

1. Place the fingers of one hand over the dog's muzzle. Refer to **Figure 3-4-1**.



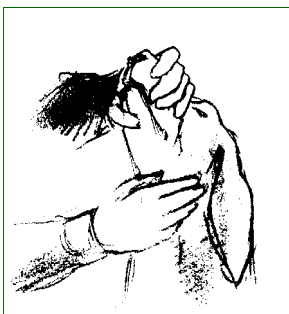
**FIGURE 3-4-1: Placement of Hand Over the Dog's Muzzle**

2. Insert thumb just behind the dog's teeth.
3. Press thumb against the roof of the dog's mouth and fingers over the dog's lips against its teeth to open its mouth.
4. With other hand, place the capsule or tablet in the center of the tongue near the back. Refer to **Figure 3-4-2**.



**FIGURE 3-4-2: How to Administer Capsules or Tablets**

5. QUICKLY remove the hand and the dog will close its mouth. HOLD the mouth closed, pointing its nose upward, while GENTLY stroking the dog's throat. Refer to **Figure 3-4-3**. Or, blow a puff of air into the dog's nose to cause a reflex to swallow.



**FIGURE 3-4-3: Stroking the Dog's Throat to Facilitate Swallowing Medicine**

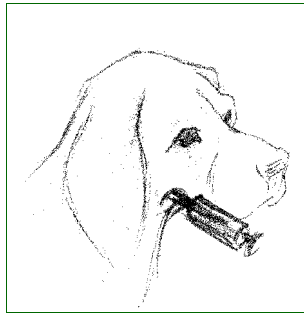
### Steps for Administering Liquids



Use extreme caution when giving an oily liquid.

1. Pour the prescribed dosage in a medicine dropper or syringe.
2. Use one hand to hold together the upper and lower jaws.
3. Point the dog's nose slightly above the horizontal. If it is raised too high, the dog won't be able to swallow.
4. Make a pouch between the molar teeth and the cheek while sliding the dropper under the dog's lip toward the back corner of the mouth. Refer to **Figure 3-4-4**. Squirt in the medicine slowly allowing the dog time to swallow the medicine.





**FIGURE 3-4-4: Positioning of a Medicine Dropper or Syringe to Administer Liquids**

5. If needed, rub the dog's throat. If the dog shows signs of distress (e.g., coughing or struggling), allow the dog to lower its head to rest before continuing.

### Eye Ointment and Eye Drops

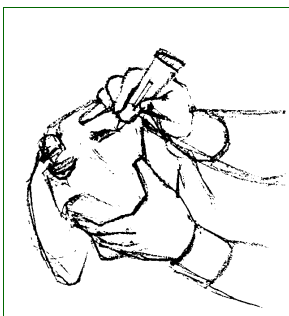
Before administering eye medicine, do the following:

1. Position and restrain the dog in a lying or sitting position.
2. Inspect the eyes for extraneous debris and clean the eyes, as necessary.
  - A. Remove dry debris with a sterile pad or cotton ball dampened with distilled or cold water.
  - B. Flush discharge from the eyes with distilled water.
3. Review the following steps for administering eye ointment or drops. Always approach the eye from behind to avoid alarming the dog.

After administering eye medicine, observe the dog for adverse reactions. If the dog rubs the affected eye with either its feet or inanimate objects, place an Elizabethan collar on the dog until the irritation subsides. Refer to [Appendix D, Equipment](#), for a description of an Elizabethan collar and directions on how to make an emergency collar.

### Steps for Administering Eye Ointment

1. Place one hand under the dog's jaw, with the thumb of the same hand on the lower eyelid. Pull the lower eyelid downward to expose the inner corner of the lower eyelid. Refer to [Figure 3-4-5](#).



**FIGURE 3-4-5: How to Hold Dog's Head While Administering Eye Ointment**

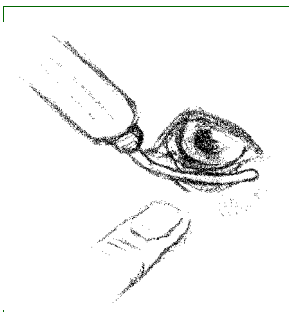
2. Place the hand holding the medication on top of the dog's head with the tube directly above the surface of the eye.
3. Lay a single ribbon of ointment 1/4–1/2" directly on the inside of the lower eyelid, going from the inner to the outer part. Refer to **Figure 3-4-6**.



If the ointment is thick, you may warm it under water or in your hands to make the ointment flow more easily.



Do not allow the tip of the tube to touch the eye or any other surface. This prevents accidental contamination of the medication or damage to the eye.



**FIGURE 3-4-6: How to Apply Eye Ointment**

### Steps for Administering Eye Drops

4. Release the eyelid.
5. Repeat the procedures for the other eye, if needed.
1. Lift the nose upward, with one hand holding the muzzle.
2. Use the thumb of the hand holding the medication to spread the eyelids apart by pressing gently above the upper eyelid.
3. Position the bottle or dropper over the eye.
4. Drop the prescribed number of drops into the eye.

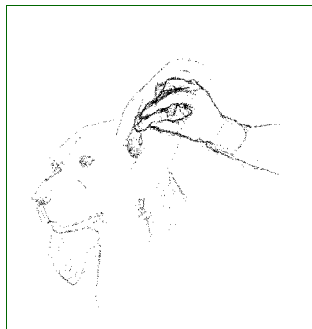
5. Release the eyelid. To ensure the drops stay in the eye, gently press.
6. Repeat the procedure in the other eye, if needed.

### Ear Drops and Ear Ointment

Review the following steps for administering ear drops and ointment. Sometimes a veterinarian will have you clean the dog's ears before applying the medicine. Refer to *"Cleaning the Ears"* on [page-3-5-5](#).

#### Steps for Administering Ear Drops and Ear Ointment

1. Position and restrain the dog.
2. Pull the earflap upward to expose the external opening of the ear canal.
3. Administer the medicine. Refer to [Figure 3-4-7](#).
  - A. Position the container directly above the external opening without the container touching any portion of the ear.
  - B. Drop the prescribed number of drops or apply the ointment directly into the ear canal.



**FIGURE 3-4-7: Applying Medicine to Ears**

4. Massage the vertical canal with the thumb and index finger. Refer to [Figure 3-4-8](#).



**FIGURE 3-4-8: Massaging Ears**

5. Release the earflap of the ear.
6. Repeat the procedure in the other ear, if needed.

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## Selecting Veterinary Services

Canine Officers, the RCPC, and the Port Director are responsible for selecting a veterinarian.

When selecting a health care provider for the detector dog, avoid APHIS veterinarians who have private practices. Also, quality of care to the detector dog should take precedence over fees charged.

The veterinarian must meet the following requirements:

- ◆ Have at least 50 percent of his or her practice in small animal care.
- ◆ Have been in practice for at least 1 year.
- ◆ Be accredited and licensed in the State where he or she practices. (Note that military veterinarians are accredited for domestic and international travel.)
- ◆ Have no valid complaint against him or her for animal abuse or professional misconduct. Have no violation with APHIS under the AWA. Check with the Better Business Bureau and your RCPC.
- ◆ Provide 24-hour emergency animal care. This includes veterinarians that refer patients to emergency clinics after office hours.
- ◆ Have adequate and sanitary facilities to provide routine and emergency care. Routine care includes minor surgery, x-rays, and dental care.